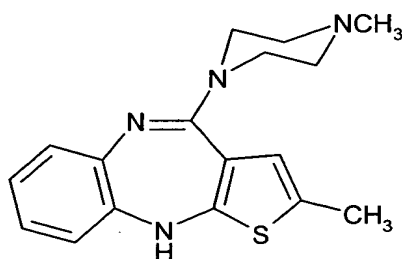


1. (once amended) A method of preparing 2-methyl-4-(4-methyl-1-piperazinyl)-10H-thieno[2,3-b][1,5]-benzodiazepine comprising the following steps:

- A) preparing 2-amino-5-methylthiophene-3-carbonitrile by mixing sulfur, [propionaldehyde] propionaldehyde in dimethylformamide, then adding triethyl amine, then adding malononitrile;
- B) preparing 2-(2-nitroanilino)-5-methylthiophene-3-carbonitrile from the reaction product of step (A) by reaction with a slurry of sodium hydride dispersed in oil in tetrahydrofuran and [2-fluoro-nitrobenzene] 2-fluoronitrobenzene;
- C) preparing 4-amino-2-methyl-10H-thieno[2,3-b][1,5]benzodiazepine hydrochloride from the reaction product of step (B) by reacting with a slurry of 2-(2-nitroanilino)-5-methyl-thiophene-3-carbonitrile in ethanol and a solution of anhydrous stannous chloride in hydrochloric acid;
- D) preparing 2-methyl-4-(4-methyl-1-piperazinyl)-10H-thieno[2,3-b][1,5]benzodiazepine by refluxing the reaction product of step (C) with a mixture of N-methylpiperazine, dimethylsulphoxide and toluene.

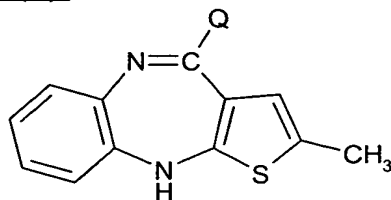
Please add the following new claims 2-26.

2. (new) A process for producing a compound of formula (I):



formula (I)

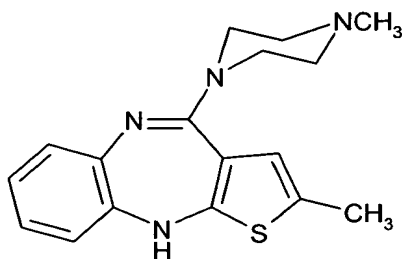
or an acid addition salt thereof, which comprises reacting N-methylpiperazine with a compound of formula (II):



formula (II)

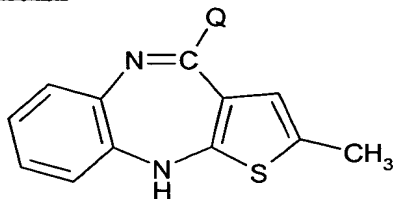
in which Q is an amino group; a mono- or dialkyl-substituted amino group, wherein each alkyl substituent contains 1 to 4 carbon atoms; hydroxyl; thiol; alkoxy; alkylthio; alkylsulphonyl group containing 1 to 4 carbon atoms; or a halogen atom.

3. (new) A process for producing a compound of formula (I):



formula (I)

or an acid addition salt thereof, which comprises reacting N-methylpiperazine with a compound of formula (II):



formula (II)

wherein Q is NH₂, or a salt thereof; hydroxyl; or thiol.

4. (new) The process according to claim 3 wherein Q is NH₂ or a salt thereof.

5. (new) The process according to claim 4 wherein Q is NH₂.

6. (new) The process according to claim 4 wherein Q is the NH₂ salt form.

7. (new) The process according to claim 6 wherein the NH₂ salt form is the hydrochloride salt.

8. (new) The process according to claim 3 wherein the process is carried out at a temperature of from 50°C to 200°C.

9. (new) The process according to claim 7 wherein the process is carried out at a temperature of from 50°C to 200°C.

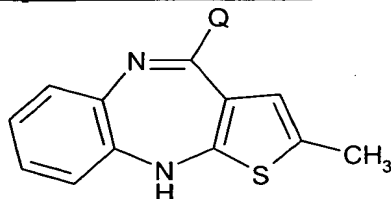
10. (new) The process according to claim 5 wherein the process is carried out at a temperature of from 50°C to 200°C.

11. (new) The process according to claim 7 wherein the process is carried out at a temperature of 100°C to 150°C.

12. (new) The process according to claim 3 wherein Q is hydroxyl.

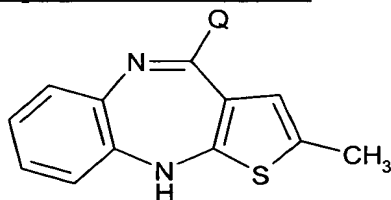
13. (new) The process according to claim 3 wherein Q is thiol.

14. (new) A compound of the formula:



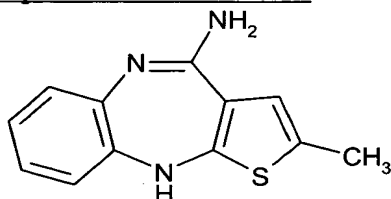
wherein Q is an amino group; a mono- or dialkyl-substituted amino group, wherein each alkyl substituent contains 1 to 4 carbon atoms; hydroxyl; thiol; alkoxy; alkylthio; alkylsulphonyl group containing 1 to 4 carbon atoms; or a halogen atom.

15. (new) A compound of the formula:



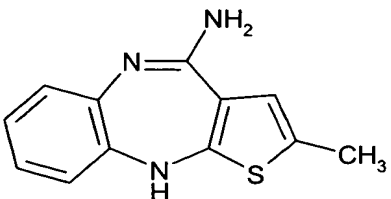
wherein Q is NH₂, or a salt thereof; hydroxyl; or thiol.

16. (new) A compound of the formula:

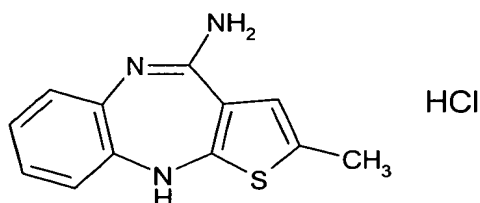


or a salt thereof.

17. (new) A compound of the formula:



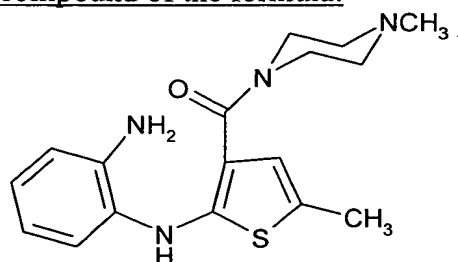
18. (new) A compound of the formula:



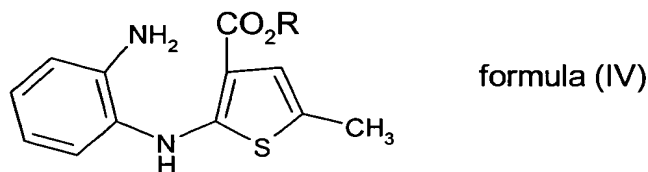
19. (new) A compound according to claim 15 wherein Q is hydroxyl.

20. (new) A compound according to claim 15 wherein Q is thiol.

21. (new) A compound of the formula:



22. (new) A compound of the formula:



in which R is an ester group.

23. (new) A compound according to claim 22 wherein R is C₁₋₄ alkyl.

24. (new) A compound according to claim 22 wherein R is methyl.

25. (new) A method of preparing 2-methyl-4-(4-methyl-1-piperazinyl)-10H-thieno[2,3-b][1,5]-benzodiazepine comprising the following steps:

- A) preparing 2-amino-5-methylthiophene-3-carbonitrile by mixing sulfur, propionaldehyde in dimethylformamide, then adding triethyl amine, then adding malononitrile;
- B) preparing 2-(2-nitroanilino)-5-methylthiophene-3-carbonitrile from the reaction product of step (A) by reaction with potassium carbonate or lithium hydroxide in dimethylsulphoxide and 2-fluoronitrobenzene;